LINDBLOM et al
Serial No. 09/688,165

Atty Dkt: 2380-155
Art Unit: 2661

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently Amended) The apparatus of claim [[4]]10, wherein the cycle comprises two sets of the predetermined sequence of maintenance cells.

6. (Currently Amended) The apparatus of claim ~~1~~10, wherein at least one of the plural ~~the~~ receiver switch port interface units detects an erroneous switch plane by performing error checking with respect to contents of a received maintenance cell.

7. (Currently Amended) ~~The apparatus of claim 1,~~ A cell switch comprising:

a first switch plane comprising a first switch core;

a second switch plane comprising a second switch core;

a sender switch port interface unit;

~~further comprising~~ N number of receiver switch port interface units~~,~~; ~~and~~

wherein the sender switch port interface unit applies maintenance cells to the N number of receiver switch port interface units in a cycle, the cycle comprising (1) non-inverted first plane maintenance cells sent via the first switch plane to each of the N

number of receiver switch port interface units; (2) non-inverted second plane maintenance cells sent via the second switch plane to each of the N number of receiver switch port interface units; (3) inverted first plane maintenance cells sent via the first switch plane to each of the N number of receiver switch port interface units; and (4) inverted second plane maintenance cells sent via the second switch plane to each of the N number of receiver switch port interface units, the inverted first plane maintenance cells and the inverted second plane maintenance cells having at least a portion thereof inverted with respect to the corresponding non-inverted cell of the cycle;

wherein the sender switch port interface unit sends maintenance cells by sending first plane maintenance cells via the first switch plane but not via the second switch plane and by sending second plane maintenance cells via the second switch plane but not via the first switch plane, each of the first plane maintenance cells and the second plane maintenance cells including a plane indicator which informs the receiver switch port interface unit whether the maintenance cell traveled through the first switch plane or the second switch plane;

wherein the receiver switch port interface unit detects an erroneous switch plane when the first plane maintenance cells and the second plane maintenance cells from the sender switch port interface unit do not arrive in a predetermined sequence.

8. (Currently Amended) ~~A cell switch comprising:~~

~~a switch plane comprising a switch core;~~

~~a sender switch port interface unit;~~

~~a receiver switch port interface unit;~~

~~wherein the sender switch port interface unit sends a pair of maintenance cells to the receiver switch port interface unit via the switch plane, a first maintenance cell of the pair having~~The apparatus of claim 10, wherein the inverted maintenance cells have a payload portion thereof inverted with respect to a corresponding portion of a ~~second maintenance cell of the pair~~the non-inverted maintenance cells.

9. (Cancelled)

10. (Previously Presented) A cell switch comprising:

a first switch plane comprising a first switch core;

a second switch plane comprising a second switch core;

a sender switch port interface unit;

plural receiver switch port interface units, and wherein the sender switch port interface unit applies maintenance cells to the plural receiver switch port interface units in a cycle, the cycle comprising (1) non-inverted first plane maintenance cells sent via the first switch plane but not via the second switch plane to each of the plural receiver switch port interface units; (2) non-inverted second plane maintenance cells sent via the second switch plane but not via the first switch plane to each of the plural receiver switch port interface units; (3) inverted first plane maintenance cells sent via the first switch plane but not via the second switch plane to each of the plural receiver switch port interface units; and (4) inverted second plane maintenance cells sent via the second switch plane but not via the first switch plane to each of the plural receiver switch port interface units, each of the first plane maintenance cells and the second plane maintenance cells including a plane indicator which informs the receiver switch port interface unit whether the maintenance cell traveled through the first switch plane or the second switch plane, the inverted first plane maintenance cells and the inverted second plane maintenance cells having at least a portion thereof inverted with respect to the corresponding non-inverted cell of the cycle.

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Currently Amended) The method of claim ~~14~~20, further comprising forming the cycle with two sets of the predetermined sequence of first plane maintenance cells and second plane maintenance cells.

16. (Currently Amended) The method of claim ~~11~~20, further comprising detecting at the receiver switch port interface unit an erroneous switch plane by performing error checking with respect to contents of a received maintenance cell.

17. (Currently Amended) A method of operating a cell switch comprising:
a first switch plane comprising a first switch core;
a second switch plane comprising a second switch core;
a sender switch port interface unit;
N number of receiver switch port interface units ;
a sender switch port interface unit which sends maintenance cells to the receiver switch port interface units by sending by sending first plane maintenance cells via the first switch plane but not via the second switch plane and by sending second plane maintenance cells via the second switch plane but not via the first switch plane, each of the first plane maintenance cells and the second plane maintenance cells including a plane indicator which informs the receiver switch port interface units whether the maintenance cell traveled through the first switch plane or the second switch plane, the first plane maintenance cells and the second plane maintenance cells being respectively applied to the first switch plane and the second switch plane in a predetermined sequence; ~~The method of claim 11, further comprising~~

the sender switch port interface unit applying the maintenance cells to the N number of receiver switch port interface units in a cycle, the cycle comprising (1) non-inverted first plane maintenance cells sent via the first switch plane to each of the N number of receiver switch port interface units; (2) non-inverted second plane maintenance cells sent via the second switch plane to each of the N number of receiver switch port interface units; (3) inverted first plane maintenance cells sent via the first switch plane to each of the N number of receiver switch port interface units; and (4) inverted second plane maintenance cells sent via the second switch plane to each of the N number of receiver switch port interface units, the inverted maintenance cells having at least a portion thereof inverted with respect to the corresponding non-inverted cell of the cycle;

detecting, at the receiver switch port interface unit, an erroneous switch plane when the first plane maintenance cells and the second plane maintenance cells from the sender switch port interface unit do not arrive in the predetermined sequence.

18. (Currently Amended) ~~A~~ The method of claim 20, wherein ~~operating a cell switch comprising sending a pair of maintenance cells from a sender switch port interface unit to a receiver switch port interface unit via a switch plane, a first~~the maintenance cells ~~of the pair having~~have a payload portion thereof inverted with respect to a corresponding portion of a ~~second~~ the non-inverted maintenance cells ~~of the pair~~.

19. (Cancelled)

20. (Previously Presented) A method of operating a cell switch comprising applying maintenance cells from a sender switch port interface unit to plural receiver switch port interface units in a cycle, the cycle comprising (1) non-inverted first plane maintenance cells sent via a first switch plane but not via a second switch plane to each of the plural receiver switch port interface units; (2) non-inverted second plane

maintenance cells sent via the second switch plane but not via the first switch plane to each of the plural receiver switch port interface units; (3) inverted first plane maintenance cells sent via the first switch plane but not via the second switch plane to each of the plural receiver switch port interface units; and (4) inverted second plane maintenance cells sent via the second switch plane but not via the first switch plane to each of the plural receiver switch port interface units, each of the first plane maintenance cells and the second plane maintenance cells including a plane indicator which informs the receiver switch port interface unit whether the maintenance cell traveled through the first switch plane or the second switch plane, the inverted first plane maintenance cells and second plane maintenance cells having at least a portion thereof inverted with respect to the corresponding non-inverted cell of the cycle.

21. (Currently Amended) The apparatus of claim 8, wherein the payload ~~portion of the first maintenance cell of the pair~~ is a bit pattern which tests a cross-point buffer memory of the switch core.

22. (Cancelled)

23. (Currently Amended) The method of claim 18, wherein the payload portion ~~of the first maintenance cell of the pair~~ is a bit pattern which tests a cross-point buffer memory of the switch core.

24. (Cancelled)